CELERY VARIETY TRIALS - 1967

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

MUCK CROPS BRANCH, CELERYVILLE, OHIO

WALTER N. BROWN

EDWARD POSTEMA

DEPARTMENT OF HORTICULTURE

Ohio Agricultural Research and Development Center
Wooster, Ohio

Department of Horticulture Mimeograph Series No. 340
January 11, 1968

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Walter N. Brown[1] and Edward Postema[2]

Twenty varieties or strains of varieties were compared in replicated trials at two planting dates: Results of the planting for August harvest are given in Table 1, and those of the planting for September harvest are given in Table 2.

CULTURAL INFORMATION

Seed Sown: Early harvest - March 27, seedlings transplanted to greenhouse benches April 24 and plants set in field on May 31, 1967.
Late harvest - May 4, seedlings transplanted to greenhouse benches June 1 and plants set in field on June 26, 1967.

Fertilizer: 1000 lbs/A of 0-20-~~0~~ 20 plowed down in early spring. Early planting was sidedressed with 100 lb/A of ammonium nitrate on June 19 and again on July 6. The Late planting was sidedressed on July 28 with 100 lbs/A of ammonium nitrate.

Spacing: Paired rows 32" apart were used with 40" between paired rows for better equipment clearance. Plants were spaced approximately 6.5" in the row with 41 plants per 23' plot, 41 plants for record. Each single row plot replicated six times in each planting.

Pesticides: Maneb at approximately weekly intervals with either Malathion, Diazinon, or Parathion alternated.

Growing Conditions: Rainfall prior to May 31 was extremely heavy preventing most field work and temperatures were below normal. After the early plantings temperatures were slightly below normal for the balance of the growing season and nearly ideal for celery. Rainfall during August was below normal and irrigation was required.

Mean temperatures and rainfall during the growing period for each planting:

Early Planting			Late Planting		
	Mean Temperature	Total Precipitation		Mean Temperature	Total Precipitation
May 1-31	53.5°	5.53"	June 26-30	66.8°	1.26"
June	66.8°	3.09"	July	70.0°	3.64"
July	70.0°	3.64"	August	67.4°	1.88"
August 1-23	67.7°	1.56"	September 1-22	66.7°	2.20"

Dates of Harvest: Early planting - August 23. Late planting first three replications September 22 and last three September 26, 1967.

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1. Dept. of Horticulture, OARDC, 1827 Neil Ave., Columbus, Ohio 43210
2. Muck Crops Branch, OARDC, Celeryville, Ohio 44890

SOURCES OF SEED

Code	Source
B1	W. Atlee Burpee Co., Box 6929, Philadelphia, Pa. 19132
F1	Ferry-Morse Seed Co., Box 398, Racine, Wisc. 53401
H1	Joseph Harris Co., Inc., Moreton Farm, Rochester, N.Y. 14624
H2	The Holmes Seed Co., Box 987, Canton, Ohio 44709
K3	Keystone Seeds Corneli Seed Co., 101 Chouteau Ave., St. Louis, Mo. 63102
L2	Letherman Seed Co., 501 McKinley Ave., N.W., Canton, Ohio 44702
S1	Stokes Seeds Inc., Box 15, Buffalo, N.Y. 14205

TABLE 1. CELERY VARIETIES FOR EARLY HARVEST, 1967
Celeryville, Ohio

(6 Replications)

Variety, Lot Number and Source	Average Wt. per Large Stalk	Yield per Plot [1]			Pet. ct. 4" above Butt	Pet. Lngth Butt-1 node	Pet. Lngth. Over-all	Trim Loss	Remarks
		Large Stalks	Small Stalks	Market-ables					
	lbs.	lbs.	lbs.	lbs.		in.	in.	%	
16. Utah 52-70 759 H-2	3.1	112.1	0.9	113.0	13.0	9.0	18.6	24.6	Many fine axil. suckers, typical of 52-70
14. Florida 683 3202 H-2	3.2	110.3	0.4	110.7	13.1	8.5	17.4	24.4	Many fine axil. suckers, good pet. and heart develp.
3. Florida 683 12526 F-1	3.2	108.4	0.8	109.2	12.7	9.0	17.9	22.7	Fewer axil. scks. than both # 20 & 14, good heart dev. Ex. unif
5. Exp. 236 A2 T-66 F-1	3.0	108.0	1.5	109.5	11.5	10.1	18.3	26.9	Many fine axil. suckers, good pet. length, attractive
15. Utah 52-75 164 H-2	3.1	107.1	0.5	107.6	10.2	8.6	16.6	25.5	Mod. fine axil. suckers, smoother rib. than 52-70, good heart dev.
4. Tall Utah 52-70 H 12550 F-1	3.1	106.5	1.2	107.7	12.1	9.7	20.2	23.9	Typical of variety. Best overall length
8. Exp. 236 A2H T-66 F-1	3.2	105.8	0.8	106.6	10.9	9.9	17.9	23.0	Mod. fine axil. suckers, less than 52-70
6. Exp. 323 B T-66 F-1	2.9	105.2	0.8	106.0	11.2	9.6	19.1	24.0	Many fine axil. suckers, good overall petiole length
11. Tall Green Light 567 H-1	3.3	103.9	1.3	105.2	15.7	9.4	18.1	24.9	Few fine axil. suckers, good heart dev., High petiole count
19. Tall Utah 52-70 "R" strain T-67 K-3	3.1	101.9	0.5	102.4	11.3	9.8	19.1	29.2	Many fine axil. suckers, but less than 52-70
LSD @ 5% Level		9.2		10.7					

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71

TABLE 1. Cont. CELERY VARIETIES FOR EARLY HARVEST 1967
Celeryville, Ohio

(6Replications)

Variety, Lot Number and Source	Average Wt. per Large Stalk	Yield per Plot [1]			Pet. ct. 4" above Butt	Pet. Lngth. Butt-1 Node	Pet. Lngth. Over-all	Trim Loss	Remarks
		Large Stalks	Small Stakls	Market-ables					
	lbs.	lbs.	lbs.	lbs.		in.	in.		
7. Exp. 136 A4 T-66 F-1	2.9	98.1	0.8	98.9	12.3	8.9	18.1	19.9	Few fine axil. suckers
12. Emerald 311 H-2	2.7	96.6	0.8	97.4	12.4	9.4	17.6	32.4	Many fine axil. suckers, dark glossy green color
9. Utah 52-70 577 H-1	2.8	96.3	1.0	97.3	12.3	9.0	19.2	28.1	Many fine axil suckers
20. Florida 683 T-67 K-3	2.8	95.1	1.4	96.5	12.8	8.6	17.5	23.8	Few fine axil. suckers
10. Florida 2-13 578 H-1	3.1	93.8	0.6	94.4	10.8	9.1	18.3	24.8	Mod. fine axil.scks., exc. flav. no strings, thick fleshy pet.
2. Tall Utah 52-75 12542 F-1	2.7	92.7	0.5	93.2	10.2	8.5	16.9	26.3	Mod. fine axil.suckers, smoother ribbing than 52-70
1. Tall Utah 52-70 12545 F-1	2.6	91.4	17.5	108.9	10.9	9.2	18.8	30.0	Many fine axil.suckers, typical
18. Florimart T-67 K-3	2.7	90.5	1.4	91.9	13.6	9.0	16.8	20.2	Many fine axil. suckers
13. Summer Pascal 314 H-2	2.7	86.9	1.7	88.6	10.2	8.1	16.0	27.5	Very many axil. suckers
17. Tall Utah 52-70 T-67 K-3	3.2	68.5	0.4	68.9	12.8	9.5	18.5	23.2	Many fine axil. suckers, typical of 52-70
LSD @ 5% Level		9.2		10.7					

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71

TABLE 2. CELERY VARIETIES FOR LATE HARVEST, 1967
Celeryville, Ohio

(6 Replications)

Variety, Lot Number and Source	Average Wt. per Large Stalk	Yield per Plot [1]			Pet. ct. 4" above Butt	Pet. Lngth Butt-1 node	Pet. Lngth. Over-all	Trim Loss	Remarks
		Large Stalks	Small Stalks	Market-ables					
	lbs.	lbs.	lbs.	lbs.		in.	in.	%	
3. Florida 683 12526 F-1	2.3	87.1	-	87.1	10.4	8.7	20.7	30.8	Very few axil. suckers. exc. unif. good heart devel.
7. Utah 52-70 577 H-1	2.3	86.7	0.9	87.6	9.7	9.3	21.5	38.8	Few fine axil.suckers, exc. unif. Least Mg. chlorosis in fld
20. Florida 683 T-67 K-3	2.5	85.3	0.7	86.0	9.6	9.9	20.9	30.3	Few fine axil. suckers, good unif.
9. Tall Green Light 567 H-1	2.3	84.3	0.2	84.5	10.5	10.0	21.1	32.8	Many fine axil. suckers, few pl. Mg. chlorosis
6. Utah 52-70 H 1526-K L-2	2.3	83.8	-	83.8	8.8	9.3	21.6	37.0	Few fine axil. suckers, mod. Mg. chlorosis
5. Exp. X 236 H T-67 F-1	2.2	82.3	0.7	83.0	8.7	10.0	21.4	33.0	No fine axil. suckers, finely cut leaves. Promising.
8. Florida 2.13 578 H-1	2.3	80.3	0.7	81.0	8.3	9.1	20.7	29.4	Very few axil. suckers, mod. Mg. chlorosis. Promising.
10. Improved Utah 52-70 99 S-1	2.2	80.2	0.4	80.6	8.1	9.4	21.1	37.0	Very few axil. scks, exc. unif. good heart devel. sl Mg. chlor. Promising
16. Utah 52-70 759 H-2	2.1	80.1	0.7	80.8	10.1	8.7	20.5	35.0	Few fine axil. suckers, sl. Mg. chlorosis
11. Utah 52-70 6872 B-1	2.1	78.4	0.7	79.1	9.7	8.9	21.0	38.6	Many fine axil. suckers, lacks uniformity
LSD @ 5% Level		10.4		10.4					

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71

TABLE 2 Cont. CELERY VARIETIES FOR LATE HARVEST, 1967
Celeryville, Ohio

(6 Replications)

Variety, Lot Number and Source	Average Wt. per Large Stalk	Yield per Plot [1]			Pet. ct. 4" above Butt	Pet. Lngth. Butt-1 node	Pet. Lngth Over-all	Trim Loss	Remarks
		Large Stalks	Small Stalks	Market-ables					
	lbs.	lbs.	lbs.	lbs.		in.	in.	%	
17. Tall Utah 52-70 T-67 K-3	2.2	78.1	1.1	79.2	9.6	9.6	21.6	36.6	Few fine axil. suckers, typical 52-70
1. Tall Utah 52-70 12545 F-1	2.2	78.0	0.7	78.7	9.2	8.9	21.4	35.1	Many fine axil. suckers, very unif. typical 52-70
2. Tall Utah 52-75 12542 F-1	2.2	76.7	0.4	77.1	7.9	9.5	20.3	39.5	No fine axil. suckers, sl Mg. chlorosis
19. Tall Utah 52-70 "R" strain T-67 K-3	2.1	74.2	1.1	75.3	8.5	9.0	20.3	40.5	Mod. fine axil. scks., mod. Mg. chlorosis, good heart develp.
4. Exp. X 136 T-67 F-1	2.1	73.0	0.6	73.6	9.8	10.0	21.5	34.5	Mod. fine axil. scks. sl. Mg. chlorosis, very good heart dev.
14. Florida 683 3202 H-2	2.0	72.9	0.4	73.3	9.7	8.6	19.8	33.4	Very few fine axil suckers, mod. Mg. chlorosis
18. Florimart T-67 K-3	1.8	67.1	1.3	68.4	9.5	8.9	20.5	45.1	Few fine axil. suckers, sl. Mg. chlorosis
13. Summer Pascal 314 H-2	1.8	65.6	1.4	67.0	6.9	8.7	19.5	43.0	No fine axil. suckers, sl. Mg. chlorosis, typical
15. Utah 52-75 164 H-2	1.9	63.3	1.0	64.3	7.7	9.3	20.3	40.8	No fine axil.suckers, sl. Mg. chlorosis, good unif.
12. Emerald 311 H-2	1.6	59.8	0.3	60.1	10.0	9.1	17.4	44.4	Few fine axil. suckers, severe Mg. chlorosis, typical
LSD @ 5% Level		10.4		10.4					

1. Yield per plot of 23 feet. To convert to 60 lb. crates/A, multiply by 9.71

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